Service Manual

NATIONAL
TAPE RECORDER
PANASONIC

DOLBY SYSTEM
CASSETTE DECK

RS-263US MECHANISM SERIES

MODEL RS-263US

SPECIFICATIONS

Power Source:	AC: 90~109, 110~125, 200~219, 220~250 volts, 50/60 Hz
Power Consumption:	Approx. 12 W
Motor:	Electronic speed control motor
Transistors:	2SC1327(4) 2SC828(18) 2SC1347(3) 2SA564(2) 2SK37(2)
Diodes:	OA90(4) 1S1850(3) RD7A(2) 1S1211(6)
Operation:	Push-button controls with auto-stop mechanism
Recording System:	AC bias 80 kHz
Erase System:	AC erase
Track System:	4-track, 2-channel stereo recording and playback
Tape Speed:	1-7/8 ips.
Wow and Flutter:	Less than 0.20%
Tape:	Cassette tape
Frequency Response:	30~13,000 Hz (with normal tape) 30~14,000 Hz (with CrO_2 tape)
Signal to Noise Ratio:	Better than 45 dB (in normal operation) Better than 55 dB (in Dolby operation)
Inputs:	2-MIC −70 dB (0.3 mV)/600Ω—20 KΩ 2-LINE −30 dB (30 mV)/150KΩ
Outputs:	2-LINE −6 dB (500 mV)/load impedance 50K Ω over 1-HEADPHONE 8Ω
Fast Forward and Rewind Time:	Approx. 100 seconds with C-60 cassette tape
Program Time:	1 hour stereo recording with C-60 cassette tape
Dimensions:	14-3/4″(W)×4-5/8″(H)×9-1/2″(D)
Weight:	10 lbs.

These specifications are subject to change in order to accommodate improvements in design.

MATSUSHITA ELECTRIC
MATSUSHITA ELECTRIC TRADING CO., LTD.
P. O. Box 288 Central, Osaka, Japan

ORDER NO. ARD-7210207

LOCATION OF PARTS

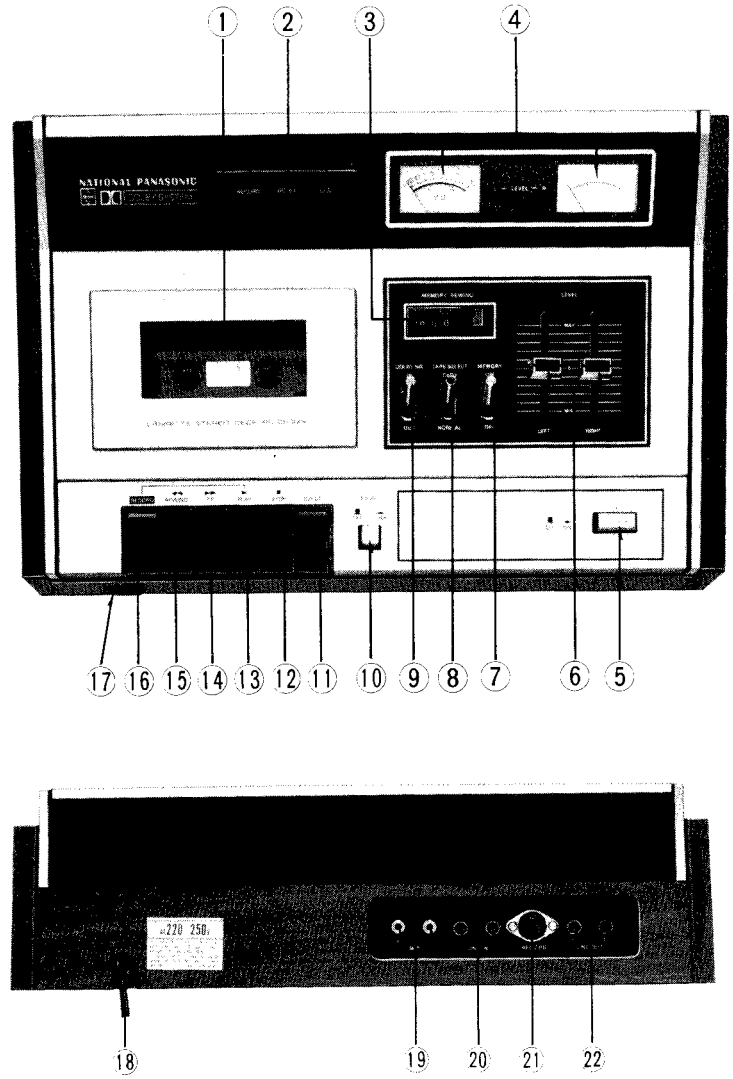


Fig. 1

① Cassette cover
② Operation indicators
③ Tape counter
④ Level meters
⑤ Power switch
⑥ Level adjustment controls
⑦ Memory rewind switch
⑧ Tape selector switch
⑨ Dolby switch
⑩ Pause button
⑪ Eject button
⑫ Stop button
⑬ Playback button
⑭ Fast forward button
⑮ Rewind button
⑯ Record button
⑰ Headphone jack
⑱ Power cord
⑲ Microphone jacks
⑳ Line in jacks
㉑ Recording/playback connector
㉒ Line out jacks

DISASSEMBLY INSTRUCTIONS

HOW TO REMOVE BOTTOM BOARD

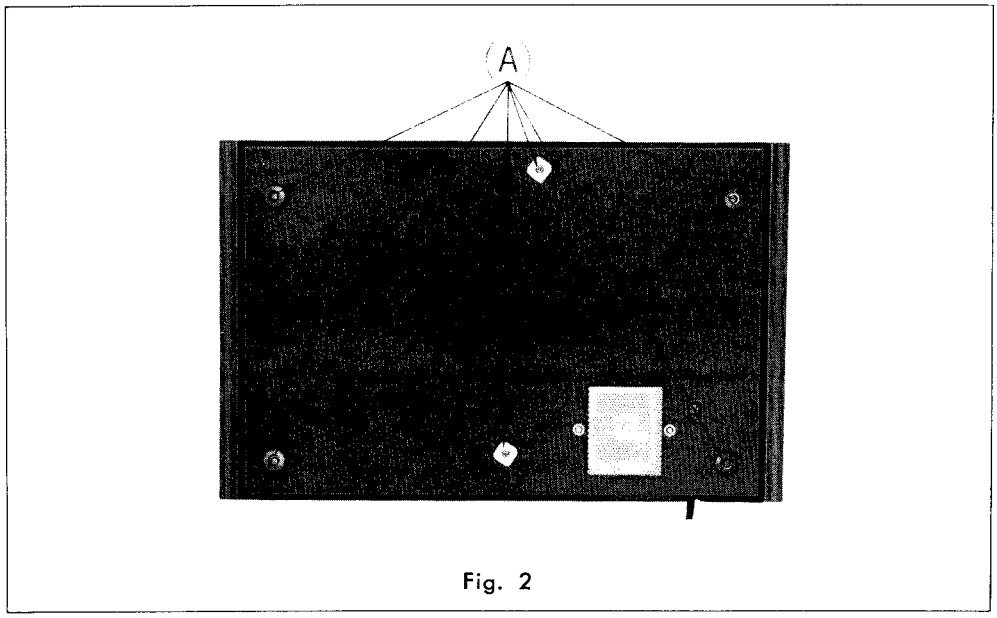


Fig. 2

1. Remove 6 bottom board holding screws (A).
2. Then bottom board can be removed.

HOW TO REMOVE CHASSIS

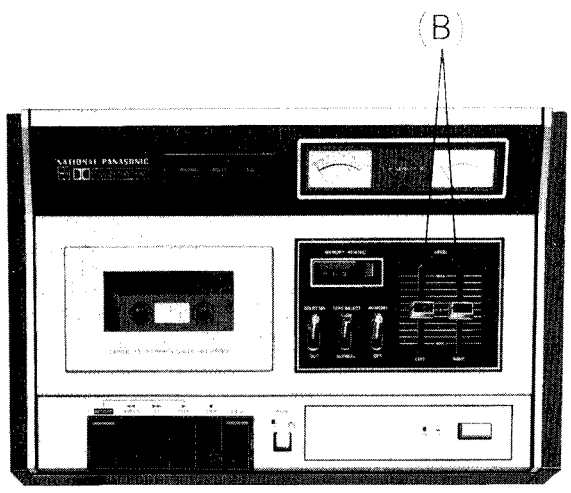


Fig. 3

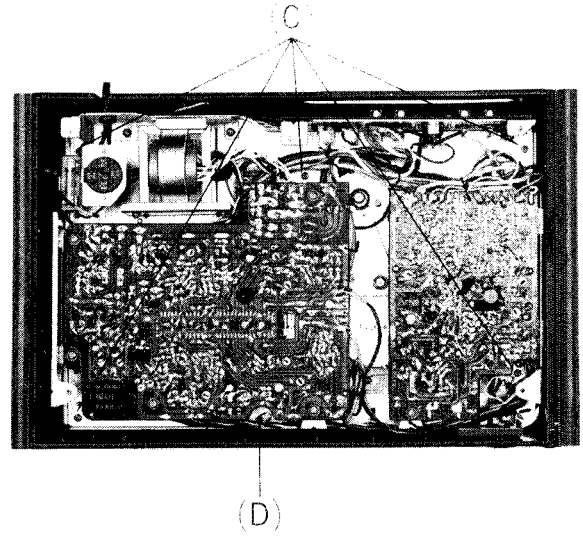


Fig. 4

1. Pull out 2 volume knobs (B).
2. Remove 5 chassis holding screws (C) and 1 chassis holding pole (D).
3. Then chassis can be removed.

STANDARD VALUE TO TEST

	ITEM	VALUE	PARTS TO BE ADJUSTED	REMARK
1	Recording bias current.	0.55±0.1 mA	L5 (for CH1) L6 (for CH2)	Level control VR should be minimum.
2	Bias oscillation frequency.	80±5 kHz	———	———
3	Recording level.	1 kHz MIC −73±3 dB LINE IN −30±4 dB DIN −73±4 dB	VR7 (for CH1) VR8 (for CH2)	To obtain 45μA of recording current through the recording head. Tape select switch should be on NORMAL position. Stop the bias oscillation by unsoldering the wire (A) as shown on printed circuit board (Page 8). Level control VR should be maximum.
4	Erase current.	70 mA	———	———
5	Recording level indicator.	0 VU on VU meter.	VR9 (for CH1) VR10 (for CH2)	At 0.5 V of Line output.
6	Playback amplifier gain.	−79±30 dB	VR3 (for CH1) VR4 (for CH2)	Level control VR should be maximum.
7	Playback equalizer.	333 Hz: 0 dB 6.3 kHz: −0.5 dB	VR1 (for CH1) VR2 (for CH2)	Playback the DIN standard tape (C-FE). If gain is not with in standard at 6.3 kHz adjust with VR1 and VR2.
8	Pressure of pressure roller.	400±50 gr	———	The value is indicated when the pressure roller comes off from capstan.
9	Takeup tension.	55±10 gr	———	Clean up the oil and dust adhring to the takeup reel table and takeup idler.
10	Detecting piece tension.	50±10 gr	———	———

DOLBY CIRCUIT ADJUSTMENT

The connection is shown in Fig. 5.

1. Place the set into the recording mode, set the Dolby* NR switch to OUT and supply input so that output of TPC (for CH1) and TPC' (for CH2) becomes 3 mV.
2. Set VR101 (for CH1) and VR103 (for CH2) to MAXIMUM (by turning them fully clockwise as seen from the reverse side of the printed circuit board).
3. Set the Dolby NR switch to IN.
4. Adjusting VR102 (for CH1) and VR104 (for CH2), make the reading of VTVM at TPb (for CH1) and TPb' (for CH2) become 10 dB greater than 3 mV (frequency: 5 kHz).
5. Adjusting VR101 (for CH1) and VR103 (for CH2), make the reading of VTVM at TPb (for CH1) and TPb' (for CH2) become 2 dB smaller than the value obtained through the adjustment in 4 above (frequency: 5 kHz).

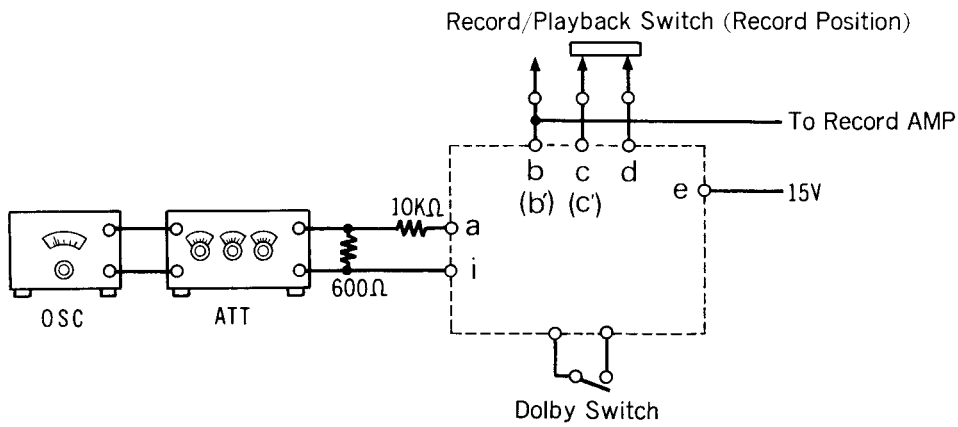
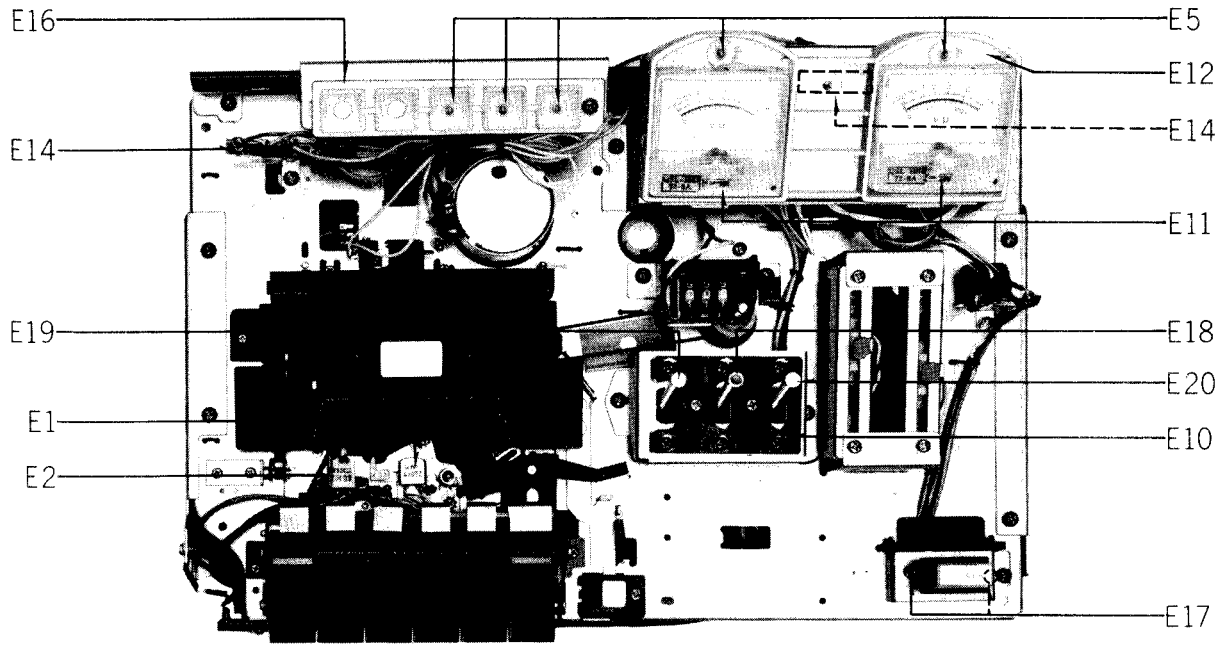
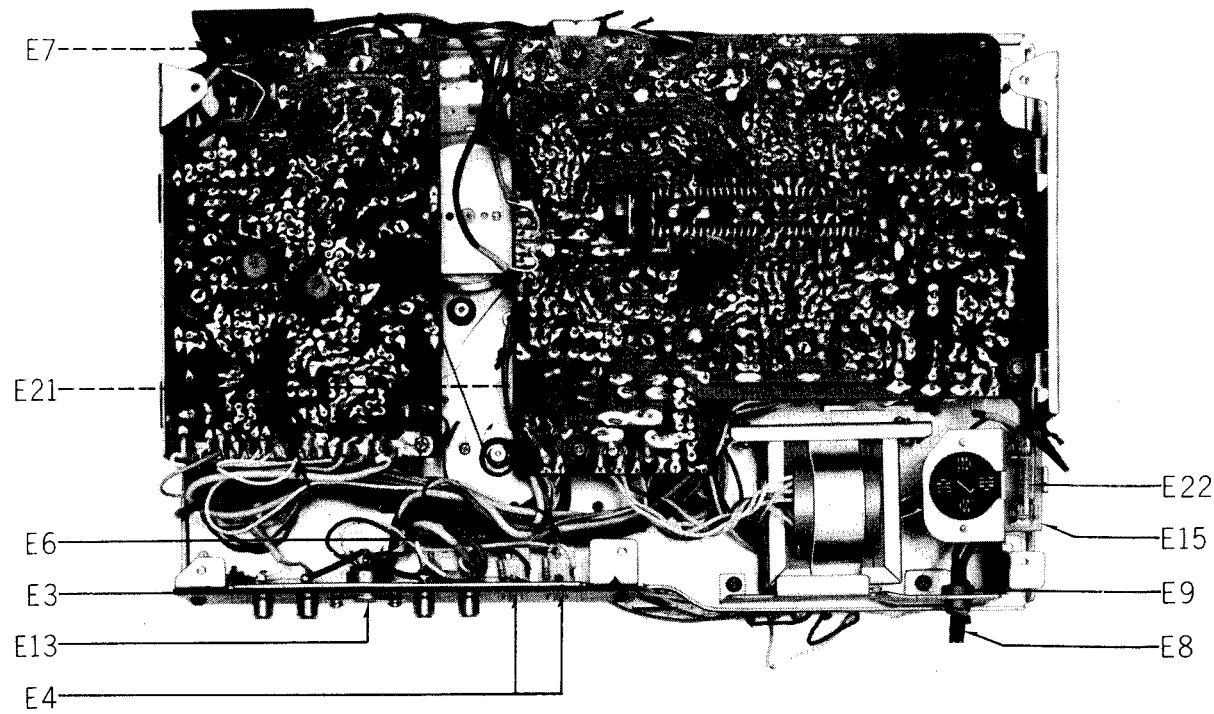


Fig. 5

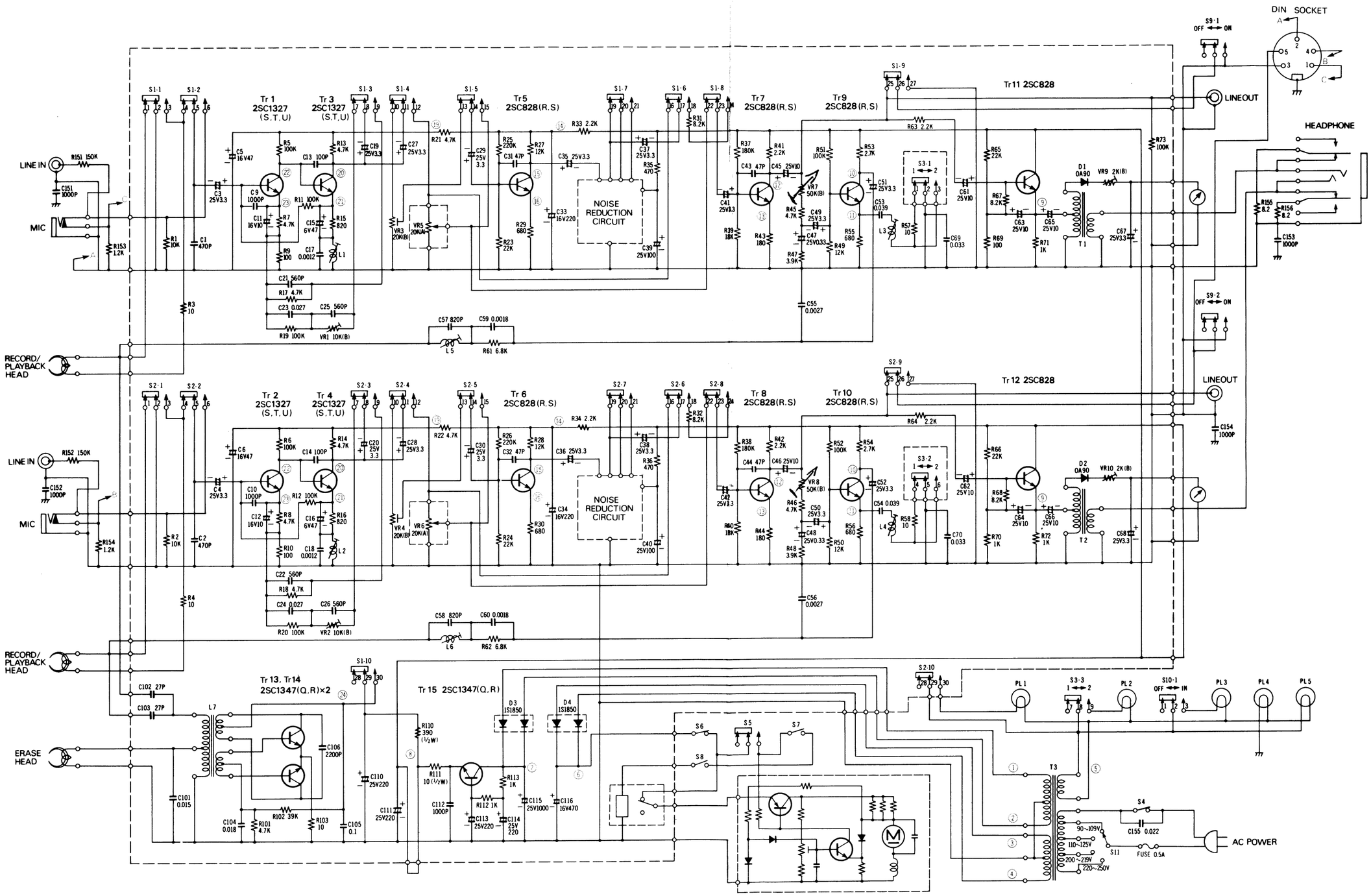
* Dolby is the trade mark of Dolby Laboratories Inc.

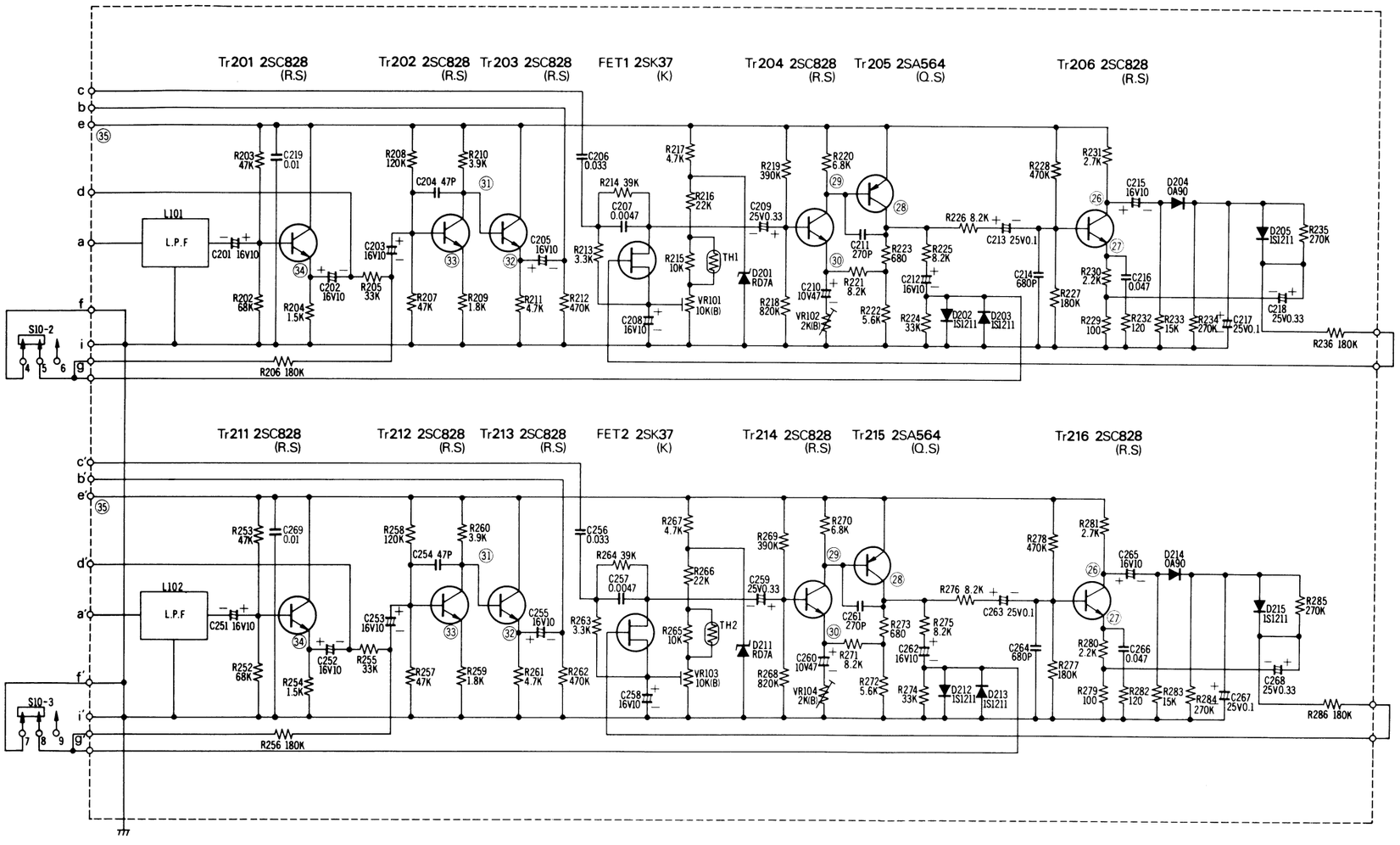
ELECTRICAL PARTS LOCATION





SCHEMATIC DIAGRAM MODEL RS-263US





STANDARD VOLTAGE CHART

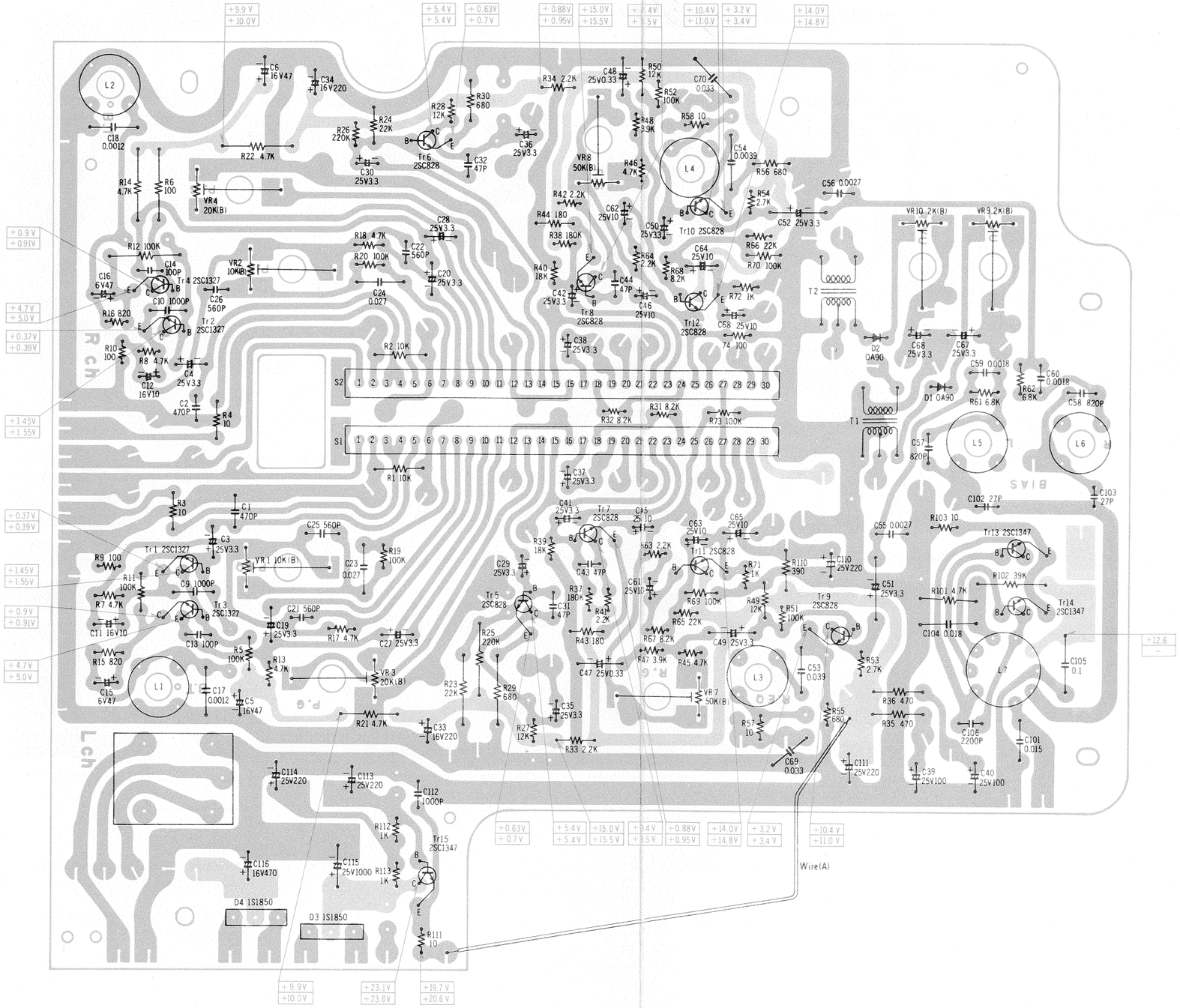
Check Point	Recording	Playback	Check Point	Recording	Playback
①	AC 18.6V	AC 18.9V	⑲	+9.9V	+10.0V
②	AC 18.6V	AC 18.9V	⑳	+4.7V	+5.0V
③	AC 8.1V	AC 8.2V	㉑	+0.9V	+0.91V
④	AC 8.1V	AC 8.2V	㉒	+1.45V	+1.55V
⑤	AC 10.2V	AC 10.4V	㉓	+0.37V	+0.39V
⑥	+8.9V	+9.0V	㉔	+12.6V	—
⑦	+23.1V	+23.6V	㉖	+10.8V	+11.2V
⑧	+19.7V	+20.6V	㉗	+2.6V	+2.7V
⑨	+14.0V	+14.8V	㉘	+8.9V	+9.4V
⑩	+10.4V	+11.0V	㉙	+13.2V	+13.9V
⑪	+3.2V	+3.4V	㉚	+8.8V	+9.3V
⑫	+9.4V	+9.5V	㉛	+7.4V	+7.6V
⑬	+0.88V	+0.95V	㉜	+6.7V	+7.0V
⑭	+15.0V	+15.5V	㉝	+3.0V	+3.1V
⑮	+5.4V	+5.4V	㉞	+7.1V	+7.5V
⑯	+6.3V	+0.7V	㉟	+13.6V	+14.2V

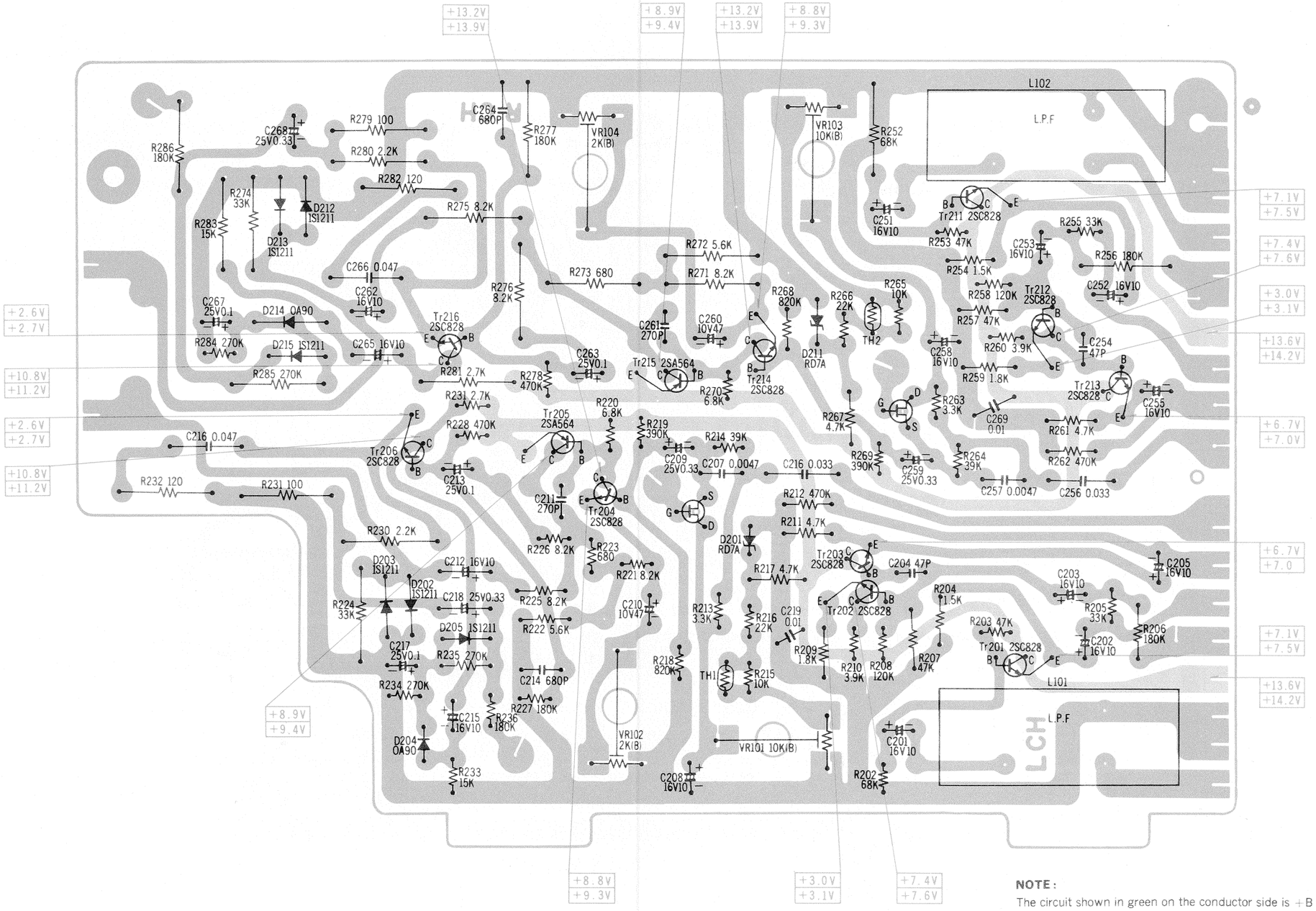
NOTE: All measurements are under no signal conditions with volume at minimum position.
Use VTVM for voltage measurements.

NOTE:

1. S1-1～S1-10, S2-1～2-10 ... Record/playback select switch (shown in playback position).
2. S3-1～S3-3 ... Tape select switch (shown in NORMAL position). 1...NORMAL, 2...CrO_2
3. S4 ... Power ON/OFF switch (shown in ON position).
4. S5 ... Memory rewind ON/OFF switch (shown in OFF position).
5. S6 ... Motor ON/OFF switch (shown in ON position).
6. S7 ... Rewind switch (ON at rewind position).
7. S8 ... Counter switch.
8. S9-1, S9-2 ... Stop switch (OFF at playback position).
9. S10-1～S10-3 ... Noise reduction circuit IN/OUT switch (DOLBY system, shown in OUT position).
10. S11, ... Voltage select switch.
11. VR1, VR2 ... Playback equalizer adjustment VR.
12. VR3, VR4 ... Playback adjustment VR.
13. VR5, VR6 ... Volume control (record and playback level adjustment VR).
14. VR7, VR8 ... Record level adjustment VR.
15. VR9, VR10 ... VU meter adjustment VR.
16. VR101～VR104 ... Noise reduction circuit adjustment.
17. Resistors are ohms (Ω), 1/4 watt unless specified otherwise. K=1,000Ω.
18. Capacitors are microfarad (μF) unless specified otherwise. P=Pico-farads.
19. Encircled numbers ( ) show the checkpoints for voltage. The values are marked in the standard voltage chart.

CIRCUIT BOARD

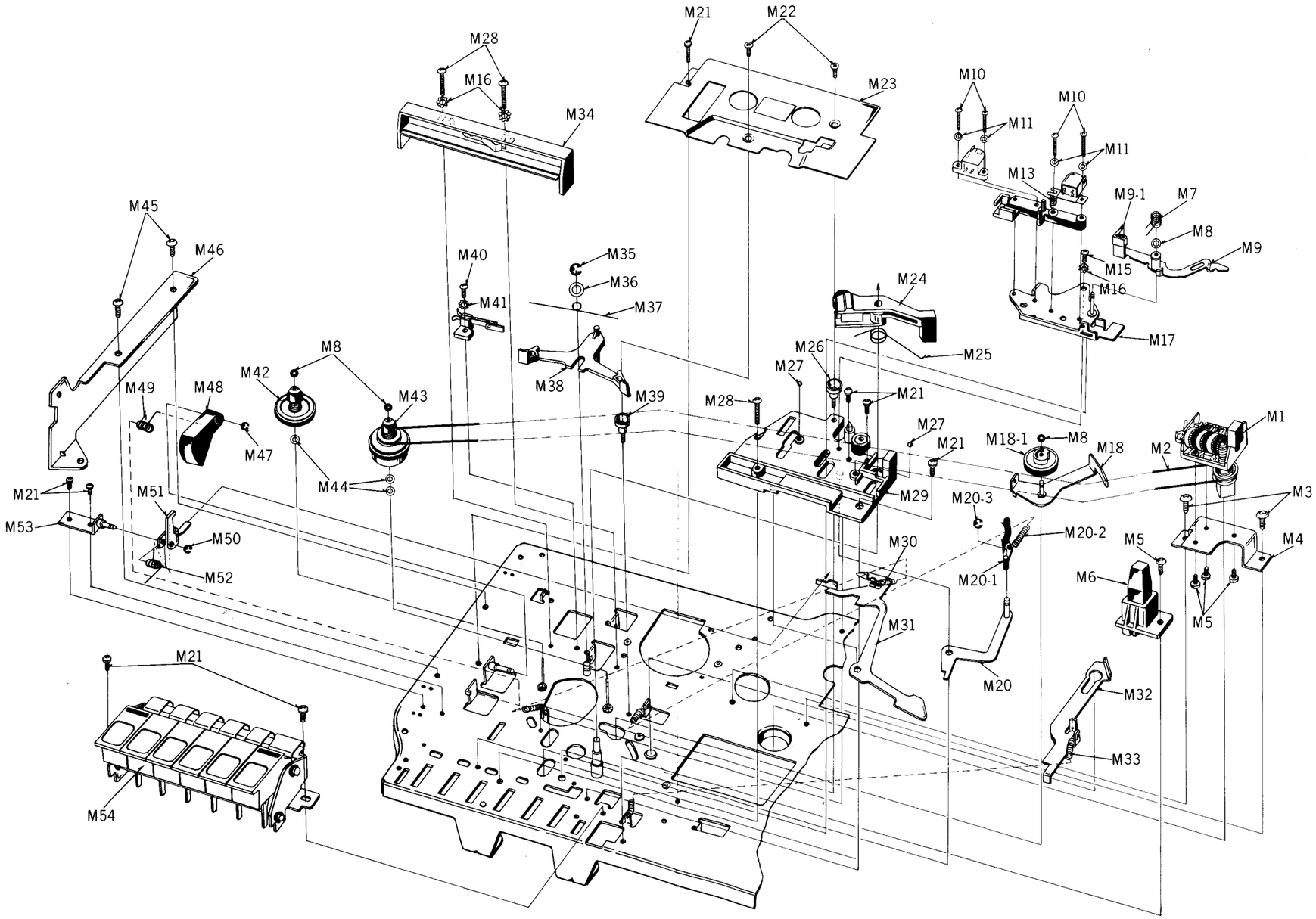


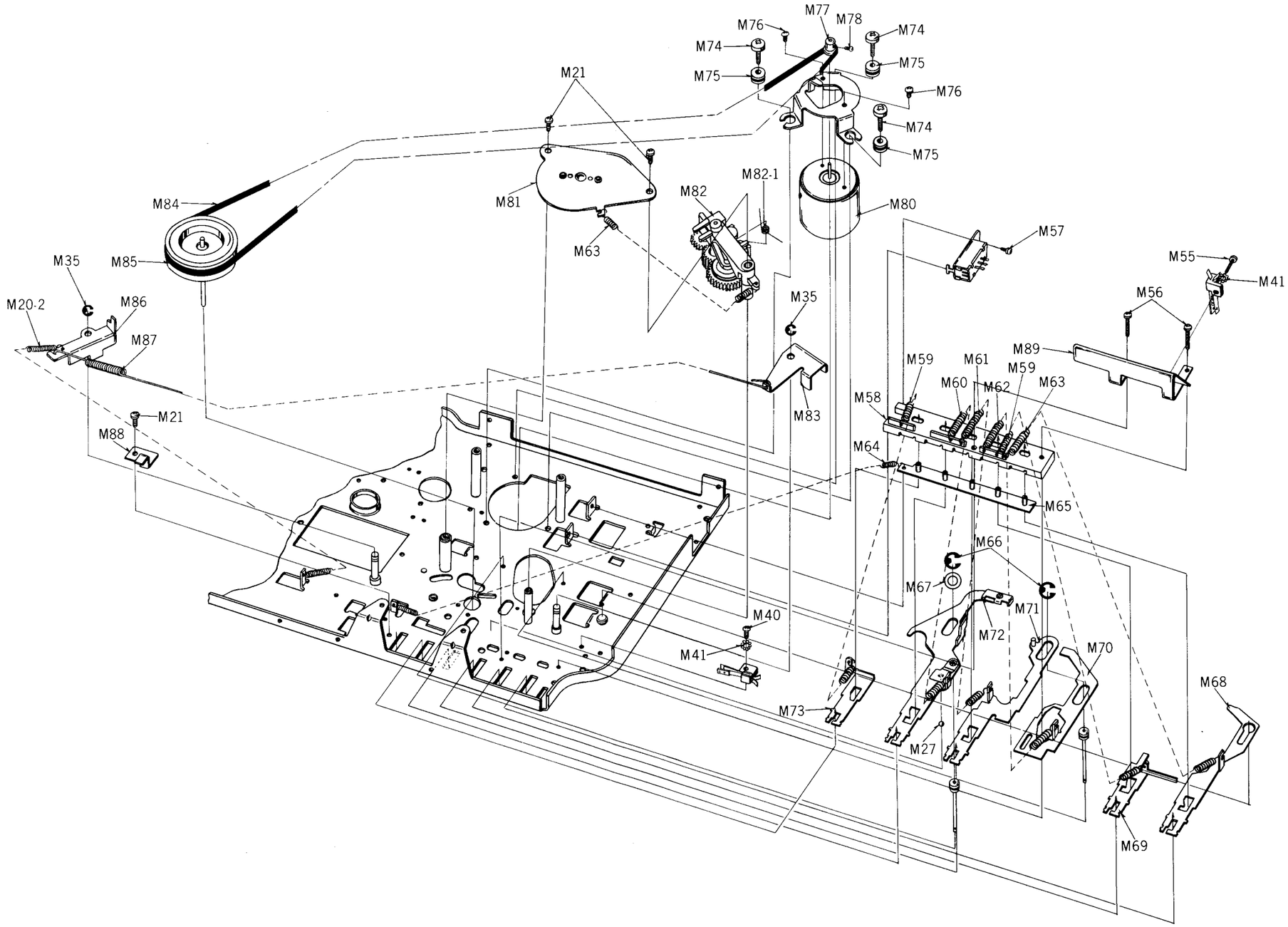


NOTE :

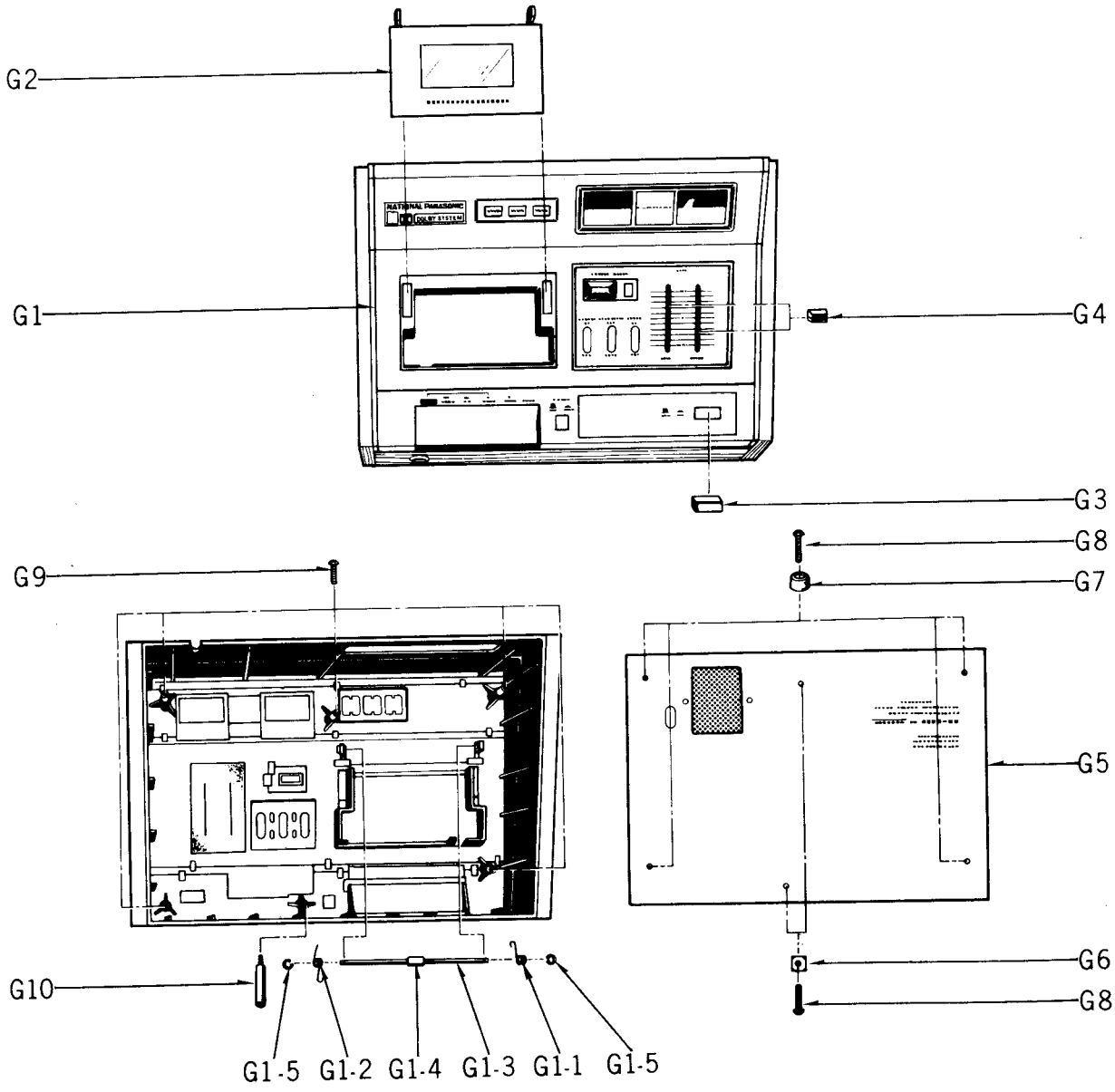
The circuit shown in green on the conductor side is + B circuit.
Values indicated in ▭ are DC voltages between the chassis and electrical parts.
The upper values should be measured during recording and the lower values during playback.

EXPLODED VIEWS




M77
M78
M76
M74
M74
M75
M75
M76
M74
M75
M21
M82-1
M82
M81
M84
M80
M63
M57
M35
M85
M55
M41
M56
M35
M20-2
M86
M89
M87
M59
M61
M59
M63
M60
M62
M58
M21
M88
M64
M83
M65
M66
M67
M71
M72
M40
M70
M41
M68
M73
M27
M69

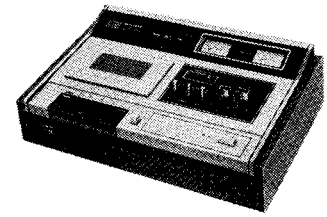
CABINET PARTS



REPLACEMENT PARTS LIST

MODEL RS-263US

NATIONAL PANASONIC



RS-263US

NOTE:

1. Be sure to make your orders of Replacement Parts according to this List.
2. "×" in "Rank" Column indicates that the part are not supplyable.
3. "**A**, **B** and **C**" in "Rank" Column indicates the recommended stock of replacement parts. Refer to the recommended stock table on last page.
4. "★" in "Remarks" Column indicates New Parts.
5. "ISO" in "Remarks" Column indicates ISO Screw or Nut.

NOTA:

1. Habrá que asegurarse que los pedidos de piezas de repuesto se hagan según esta lista.
2. "×" marcado en la columna "Rank", quiere decir que dichas piezas no pueden ser provistas.
3. "**A**, **B** y **C**" marcadas en la columna "Rank" indican el surtido que se recomienda tener de dichas piezas de repuesto.
4. "★" marcado en la columna "Remarks", quiere decir que las piezas son nuevas.
5. "ISO" marcado en la columna "Remarks", quiere decir que es un tornillo o tuerca "ISO".

NOTE:

1. Bien s'assurer de se conformer à la liste suivante pour les commandes de pièces de rechange.
2. "×", dans la colonne "Rank", indique qu'il n'est pas possible de fournir ces pièces.
3. "**A**, **B** et **C**", dans la colonne "Rank", indiquent le stock recommandé de pièces de rechange. Se reporter en dernière page au tableau des stocks/recommandés.
4. "★", dans la colonne "Remarks", indique les pièces nouvelles.
5. "ISO", dans la colonne "Remarks", indique une vis ou un écrou ISO.

HINWEIS:

1. Bestellen Sie Ihre Ersatzteile genau nach dieser Liste.
2. Mit "×" in der "Rank" Spalte aufgeführte Teile können nicht geliefert werden.
3. "**A**, **B** und **C**" in der "Rank" Spalte zeigt Ihnen den Vorrat der Ersatzteile an.
4. "★" in der "Remarks" Spalte bedeutet "neue Teile".
5. "ISO" in der "Remarks" Spalte bedeutet ISO-Schraube oder Mutter.

按：

1. 關於代用零件之訂購，務請依照此表而行之爲荷。
2. 「等級」(Rank) 一欄中之 "×" 標記表示該零件無從供應。
3. 「等級」(Rank) 一欄中之 "**A**, **B**, **C**" 標記表示該零件有存貨，值得介紹。
   請參照最後一頁的「值得介紹存貨表」。
4. 「備考」(Remarks) 一欄中之 "★" 形符號標記表示該零件爲新出品。
5. 「備考」(Remarks) 一欄中之 "ISO" 符號標記表示國際標準化機構 (ISO) 式螺絲或螺母。

Rank	Ref. No.	Description	Part No.	Pcs/ Set	Price (Per Pce.)		Remarks
		MECHANICAL PARTS					
A	M1	Memory Tape Counter	QDC0041S	1			★ ISO
A	M2	Counter Belt	QDB0124	1			RS-253S
C	M3	Tapping Screw ⊕3×6	XTV3+6	2			COMMON
×	M4	Counter Angle	QMAM005	1			★
C	M5	Screw ⊕3×5	XSN3+5S	4			COMMON ISO
C	M6	Pause Switch Assembly	QXQM002	1			★
C	M7	Auto Stop Detecting Lever Spring	QBN1188	1			RQ-409S RS-261US
C	M8	Snap Washer	QWQ1124	4			RQ-437S RS-261US
C	M9	Detecting Lever Assembly	QXLM005	1			★
B	M9-1	Detecting Piece	QBJ1538	1			RQ-437S RS-261US
C	M10	Screw ⊖2×12	XSN2 12	4			COMMON
C	M11	Spring Washer 2φ	XWA2B	3			,,
C	M12	Washer 2φ	XWE2	1			,,
B	M13	Head Spring	QBC1103	1			RQ-209S, 437S RS-261US
C	M14	Head Spacer	QBJM003	1			RS-261US
C	M15	Screw ⊕2.6×6	XSN26+6	2			COMMON
C	M16	Lock Washer 2.6φ	XWC26B	2			,,
×	M17	Head Base Plate Unit	QXK1243	1			RS-261US 281S
A	M18	Idler Lever Assembly	QMLM008	1			★
×	M18-1	Idler	QXI0050	1			RQ-437S RS-261US
C	M20	Auto Stop Drive Lever Assembly	QXL0568	1			★
B	M20-1	Auto Stop Drive Pawl	QBJ1656	1			RQ-409S, 437S
C	M20-2	Auto Stop Spring	QBT1489M	1			RQ-437S RS-261US
C	M20-3	Stop Ring 2.5φ	XUC25FK	1			COMMON
C	M21	Sems Screw ⊕2.6×6	XYN26+C6	8			,,
C	M22	Screw ⊕2.5×5	XSS26+5K	2			COMMON
C	M23	MECHA Panel Ornament	QMFM001	1			★
A	M24	Pressure Roller Lever Assembly	QXLM010	1			★

Rank	Ref. No.	Description	Part No.	Pcs/ Set	Price (Per Pce.)		Remarks
C	M25	Pressure Roller Spring	QBN1157	1			RQ-437S RS-261US
C	M26	Pole-A	QMSM008	1			★
B	M27	Steel Ball 2.5ϕ	QDK1012	3			RQ-437S RS-261US
C	M28	Screw ⊕2.6×10	XSN26+10	3			COMMON
×	M29	Upper Base Assembly	QXK1293	1			★
C	M30	Lock Plate Spring	QBT1521	1			RS-261US, 281S
C	M31	Eject Lever	QMLM012	1			★
C	M32	Pause Lever	QMLM010	1			★
C	M33	Stop Lever Spring	QBT1580	1			RQ-437S RS-261US
C	M34	Cassette Retainer Assembly	QXQ0061	1			★
C	M35	Stop Ring 3ϕ	XUC3FK	2			COMMON
C	M36	Fiber Washer 4.2×9×0.5	QBK7005	1			"
C	M37	Brake Spring	QBN1088	1			RQ-209S RS-254S
B	M38	Brake	QBJ2097	1			★
C	M39	Pole-B	QMSM009	1			★
C	M40	Screw ⊕2×4	XSN2+4	2			COMMON
C	M41	Lock Washer 2ϕ	XWC2B	3			"
A	M42	Supply Reel Table Assembly	QXP0320	1			RQ-437S RS-261US
A	M43	Takeup Reel Table Assembly	QXP0395	1			★
C	M44	Snap Washer	QBJ3220	3			RQ-409S RS-281S
C	M45	Tapping Screw ⊕3×8	XTV3+8B	2			COMMON
×	M46	Dolby Circuit Board Holding Angle	QTTM044S	1			★ ISO
C	M47	Stop Ring 1.5ϕ	XUC15FK	1			COMMON
C	M48	Cassette Up	QBJM007	1			★
C	M49	Cassette Up Spring	QBNM001	1			★
C	M50	Stop Ring 2ϕ	XUC2FK	1			COMMON
C	M51	Lid Hook Plate	QMAM009	1			★
C	M52	Lid Hook Plate Spring	QBN1189	1			★
C	M53	Hook Plate Holder Unit	QXEM001	1			★

Rank	Ref. No.	Description	Part No.	Pcs/ Set	Price (Per Pce.)		Remarks
B	M54	Operation Button Assembly	QXBM006	1			★
C	M55	Screw ⊕2×8	XSN2+8	1			COMMON
C	M56	Sems Screw ⊕2.6×10	XYN26+C10	2			"
C	M57	Sems Screw ⊕3×6	XYN3+C6S	1			COMMON ISO
C	M58	Lever Guide	QBJ1657	1			RQ-437S RS-261US
C	M59	Stop Lever Spring	QBT1580	2			"
C	M60	Playback Lever Spring	QBT1536M	1			"
C	M61	Fast Forward Lever Spring-A	QBT1484M	1			"
C	M62	Fast Forward Lever Spring-B	QBT1485M	1			RQ-437S RS-261US
C	M63	Record Lever Spring	QBT1486M	1			"
C	M64	Lock Plate Spring	QBT1521	1			RS-261US, 281S
C	M65	Lock Plate Unit	QXH0096	1			RQ-437S RS-261US
C	M66	Stop Ring 5φ	XUC5FK	2			COMMON
C	M67	Fiber Washer 6.2×11×1	QBK7130	1			COMMON
C	M68	Record Lever	QMLM008	1			★
C	M69	Rewind Lever	QMLM009	1			★
C	M70	Fast Forward Lever-B	QML2118	1			RQ-409S RS-261US, 281S
C	M71	Fast Forward Lever Unit	QXL0481	1			RS-261US, 281S
C	M72	Playback Lever Unit	QXLM009	1			★
C	M73	Stop Lever	QML1954	1			RS-281S
C	M74	Screw	QMS1833	3			RQ-437S RS-261US
C	M75	Motor Rubber Cushion	QBG1055A	3			"
C	M76	Screw ⊕2.6×3	XSN26+3	2			COMMON
B	M77	Motor Pulley	QDP1378	1			RQ-437S RS-261US
C	M78	Motor Pulley Set Screw	XSN2+3	1			COMMON
×	M79	Motor Holding Angle	QMA1681	1			RS-261US, 281S
A	M80	Motor	QDM0980	1			RQ-436S RS-261US
×	M81	Flywheel Retainer Unit	QXH0095	1			RQ-437S RS-261US
C	M82	Fast-wind Lever Assembly	QXL0451	1			RQ-437S RS-261US

Rank	Ref. No.	Description	Part No.	Pcs/ Set	Price (Per Pce.)		Remarks
C	M82-1	Gear Lever Spring	QBN1196	1			RQ-437S RS-261US
C	M83	Record/Playback Lever-A	QMLM006	1			★
A	M84	Flywheel Belt	QDB0141	1			RQ-437S RS-261US
A	M85	Flywheel Assembly	QXF0063	1			"
C	M86	Record/Playback Lever-B	QMLM007	1			★
C	M87	Record/Playback Wire	QBNM002	1			★
C	M88	Lever Guide Holding Metal	QMA1697	1			RS-261US, 281S
×	M89	Muting Switch Angle	QTTM052S	1			★ ISO
		RESISTORS					
B	R1, 2, 215, 265	Carbon Resistor 10KΩ 1/4 W	ERD14VJ103	4			
B	R3, 4, 57, 58, 103	" 10Ω 1/4 W	ERD14VJ100	5			
B	R5, 11, 19, 20, 51, 52, 69, 70, 73, 74						
		" 100KΩ 1/4 W	ERD14VJ104	10			
B	R6, 12	" 100KΩ 1/4 W	ERD14TJ104	2			
B	R7, 8, 13, 17, 18, 21, 45, 46, 101, 211, 217, 261, 267						
		" 4.7KΩ 1/4 W	ERD14VJ472	13			
B	R9, 10	Carbon Resistor 100Ω 1/4 W	ERD14VJ101	2			
B	R14, 22	" 4.7KΩ 1/4 W	ERD14TJ472	2			
B	R15, 16	" 820Ω 1/4 W	ERD14VJ821	2			
B	R23	" 22KΩ 1/4 W	ERD14TJ223	1			
B	R24, 65, 66, 216, 266	" 22KΩ 1/4 W	ERD14VJ223	5			
B	R25	Carbon Resistor 220KΩ 1/4 W	ERD14TJ224	1			
B	R26	" 220KΩ 1/4 W	ERD14VJ224	1			
B	R27, 28, 49, 50	" 12KΩ 1/4 W	ERD14VJ123	4			
B	R29, 273	" 680Ω 1/4 W	ERD14TJ681	2			
B	R30, 55, 56, 223	" 680Ω 1/4 W	ERD14VJ681	4			
B	R31, 32, 67, 68, 221, 225, 226	Carbon Resistor 8.2KΩ 1/4 W	ERD14VJ822	7			
B	R33, 34, 41, 42, 63, 64	" 2.2KΩ 1/4 W	ERD14VJ222	6			
B	R35, 36	" 470Ω 1/4 W	ERD14VJ471	2			
B	R37, 38, 206, 227, 236	" 180KΩ 1/4 W	ERD14VJ184	5			

Rank	Ref. No.	Description	Part No.	Pcs/ Set	Price (Per Pce.)		Remarks
B	R39, 40	Carbon Resistor 18KΩ 1/4 W	ERD14VJ183	2			
B	R43, 44	Carbon Resistor 180Ω 1/4 W	ERD14VJ181	2			
B	R47, 48, 210, 260	" 3.9KΩ 1/4 W	ERD14VJ392	4			
B	R53, 54, 231	" 2.7KΩ 1/4 W	ERD14VJ272	3			
B	R61, 62, 220, 270	" 6.8KΩ 1/4 W	ERD14VJ682	4			
B	R71, 72, 112, 113	" 1KΩ 1/4 W	ERD14VJ102	4			
B	R102	Carbon Resistor 39KΩ 1/4 W	ERD14TJ393	1			
B	R110	Solid Resistor 270Ω 1/4 W	ERC12GK271	1			
B	R111	" 10Ω 1/4 W	ERC12GK100	1			
B	R151, 152	Carbon Resistor 150KΩ 1/4 W	ERD14TJ154	2			
B	R153, 154	" 1.2KΩ 1/4 W	ERD14TJ122	2			
B	R155, 156	Carbon Resistor 8.2Ω 1/4 W	ERD14TJ8R2	2			
B	R202	" 68KΩ 1/4 W	ERD14VJ683	1			
B	R203,207,253, 257	" 47KΩ 1/4 W	ERD14VJ473	4			
B	R204, 254	" 1.5KΩ 1/4 W	ERD14VJ152	2			
B	R205, 255	" 33KΩ 1/4 W	ERD14VJ333	2			
B	R208, 258	Carbon Resistor 120KΩ 1/4 W	ERD14VJ124	2			
B	R209, 259	" 1.8KΩ 1/4 W	ERD14VJ182	2			
B	R212,228,262, 278	" 470KΩ 1/4 W	ERD14VJ474	4			
B	R213, 263	" 3.3KΩ 1/4 W	ERD14VJ332	2			
B	R214, 264	" 39KΩ 1/4 W	ERD14VJ393	2			
B	R218, 268	Carbon Resistor 820KΩ 1/4 W	ERD14VJ824	2			
B	R219, 269	" 390KΩ 1/4 W	ERD14VJ394	2			
B	R222	" 5.6KΩ 1/4 W	ERD14VJ562	1			
B	R224, 274	" 33KΩ 1/4 W	ERD14TJ333	2			
B	R229, 279	" 100Ω 1/4 W	ERD14TJ101	2			
B	R230, 280	Carbon Resistor 2.2KΩ 1/4 W	ERD14TJ222	2			
B	R232, 282	" 120Ω 1/4 W	ERD14TJ121	2			
B	R233	" 15KΩ 1/4 W	ERD14VJ153	1			

Rank	Ref. No.	Description	Part No.	Pcs/ Set	Price (Per Pce.)		Remarks
B	R234,235,284	Carbon Resistor 270 KΩ 1/4 W	ERD14VJ274	3			
B	R252	" 68 KΩ 1/4 W	ERD14TJ683	1			
B	R256,277,286	Carbon Resistor 180 KΩ 1/4 W	ERD14TJ184	3			
B	R271,275,276	" 8.2 KΩ 1/4 W	ERD14TJ822	3			
B	R272	" 5.6 KΩ 1/4 W	ERD14TJ562	1			
B	R281	" 2.7 KΩ 1/4 W	ERD14TJ272	1			
B	R283	" 15 KΩ 1/4 W	ERD14TJ153	1			
B	R285	Carbon Resistor 270 KΩ 1/4 W	ERD14TJ274	1			
		VARIABLE RESISTORS					
A	VR1, 2	Semi-fixed Variable Resistor 10 KΩ (B)	QVL00AA00B14	2			RS-262US,275US
A	VR3, 4	" 20 KΩ (B)	EVLS3AA00B24	2			★
A	VR5, 6	Variable Resistor 20 KΩ (A)	EVA72AA01A24	2			RS-262US
A	VR7, 8	Semi-fixed Variable Resistor 50 KΩ (B)	QVL00AA00B54	2			RS-270US,261US 715US
A	VR9, 10, 102, 104	" 2 KΩ (B)	QVL00AA00B23	4			★
A	VR101, 103	Semi-fixed Variable Resistor 10 KΩ (B)	EVL53AA00B14	2			★
		CAPACITORS					
C	C1, 2	Styrol Capacitor 470 pF	ECQS1471KZ	2			
B	C3,4,19,20,27,28,29,30,35,36,37,38,49,50,51 52,67,68						
		Electrolytic Capacitor 3.3μF	ECEA25V3R3L	18			
B	C5, 6	" 47μF	ECEA16V47L	2			
C	C9,10,151, 152,153,154	Ceramic Capacitor 1000 pF	ECKD05102MZ	6			
B	C11,12,201,202,203,205,208,215,251,252,253, 255,258,262,265						
		Electrolytic Capacitor 10μF	ECEA16V10L	16			
C	C13, 14	Ceramic Capacitor 100 pF	ECCD05101K	2			
B	C15, 16	Electrolytic Capacitor 47μF	ECEA6V47L	2			
C	C17, 18	Mylar Capacitor 0.0012μF	ECQM05122KZ	2			
C	C21,22,25,26	Styrol Capacitor 560 pF	ECQS1561KZ	4			
C	C23, 24	Mylar Capacitor 0.027μF	ECQM05273KZ	2			

Rank	Ref. No.	Description	Part No.	Pcs/ Set	Price (Per Pce.)		Remarks
C	C31,32,43,44, 204,254	Ceramic Capacitor 47 pF	ECCD05470K	6			
B	C33, 34	Electrolytic Capacitor 220μF	ECEA16V220L	2			
B	C39, 40	" 100μF	ECEA25V100L	2			
C	C41,42,47,48,	209,218,259,268					
		Aluminum Capacitor 0.33μF	ECAG25ER33	8			
B	C45,46,61,62, 63,64,65,66	Electrolytic Capacitor 10μF	ECEA25V10L	8			
C	C53, 54	Mylar Capacitor 0.039μF	ECQM05393KZ	2			
C	C55, 56	" 0.0027μF	ECQM05272KZ	2			
C	C57, 58	Styrol Capacitor 820 pF	ECQS1821KZ	2			
C	C59, 60	Mylar Capacitor 0.0018μF	ECQM05182KZ	2			
C	C69, 70, 206, 256	" 0.033μF	ECQM05333KZ	4			
C	C101	Mylar Capacitor 0.015μF	ECQM1153KZ	1			
C	C102, 103	Ceramic Capacitor 27 pF	ECCD05270K	2			
C	C104	Mylar Capacitor 0.018μF	ECQM05183KZ	1			
C	C105	" 0.1μF	ECQM05104KZ	1			
C	C106	Styrol Capacitor 2200 pF	ECQS1222KZ	1			
B	C110,111,113, 114	Electrolytic Capacitor 220μF	ECEA25V220L	4			
B	C115	" 100μF	ECEA25V1000L	1			
B	C116	" 470μF	ECEA16V470L	1			
C	C207, 257	Mylar Capacitor 0.0047μF	ECQM05472KZ	2			
B	C210, 260	Electrolytic Capacitor 47μF	ECEA10V47L	2			
C	C211, 261	Styrol Capacitor 270 pF	ECQS1271KZ	2			
C	C213,217,263, 267	Aluminum Capacitor 0.1μF	ECAG25ER1	4			
C	C214, 264	Styrol Capacitor 680 pF	ECQS1681KZ	2			
C	C216, 266	Mylar Capacitor 0.047μF	ECQM05473KZ	2			
C	C219, 267	Ceramic Capacitor 0.01μF	ECCD05103P	2			
		TRANSISTORS					
A	Tr1, 2, 3, 4	Transistor	2SC1327(S,T,U)	4			★
A	Tr5,6,7,8,9,10, 212,213,214,	11,12,201,202,203,204,206,211, 216					
		"	2SC828(R,S)	18			RS-270US 275US 715US

Rank	Ref. No.	Description	Part No.	Pcs/ Set	Price (Per Pce.)		Remarks
A	Tr13, 14, 15	Transistor	2SC1347(Q,R)	3			★
A	Tr205, 215	"	2SA564(Q,R)	2			RS-257S, 281S, 282S, 818S
A	FET1, 2	"	2SK37(K)	2			★
		DIODES					
A	D1,2,204,214	Diode	OA90	4			COMMON
A	D3 4	"	IS1850	2			RQ-437S RS-275US
A	D201, 211	"	RD7A	2			★
A	D202,203,205, 212,213,215	"	IS1211	6			RS-253S, 257S, 267S, 272US
		THERMISTORS					
B	TH1, 2	Thermistor	QVM302A	2			RS-763S, 820
		TRANSFORMERS					
A	T1, 2	Output Transformer	QLA0349	2			RS-270US,275US 763US,796US
A	T3	Power Transformer	QLPM0308	1			★
		COILS					
A	L1, 2	Trap Coil	QLHM2001	2			★
A	L3, 4, 5, 6	Choke Coil	QLH2008	4			RS-262US,270US 740US
A	L7	Oscillator Coil	QLB0153	1			★
A	L101, 102	Low Pass Filter	QLH2021	2			★
		SWITCHES					
A	S1, 2	Slide Switch (Record/Playback Selector)	QSS1148A	2			★
A	S3, 10	Lever Switch	QST0033SB	2			★
A	S4	Push Switch (Power)	ESB1130DS	1			★ ISO
A	S5	Lever Switch (Memory Rew.)	QST0016SB	1			RS-275US
A	S6	Leaf Switch (Motor ON/OFF)	QSB0169A	1			RS-256US,262US 803US
A	S7	Leaf Switch (Rewind Switch)	QSB0170A	1			RS-253S, 254S, 270US
	S8	Memory Counter Switch	with M1	(1)			
A	S9	Stop Switch	QSS1105	1			RS-275US
A	S11	Rotary Switch (Voltage Selector)	QSR0005B	1			COMMON
A	S12	Muting Switch	QSBM001	1			★

Rank	Ref. No.	Description	Part No.	Pcs/ Set	Price (Per Pce.)		Remarks
		ELECTRICAL PARTS					
A	E1	Record/Playback Head	QWY4107Z	1			★
A	E2	Erase Head	WY0242Z	1			★
C	E3	Jack Board	QJTM008	1			★
B	E4	M3 Jack	QJA0115	2			COMMON
A	E5	Pilot Lamp	XAMQ18P	5			★
C	E6	2P Lug Terminal	QJT2012	1			★
B	E7	Headphone Jack	QJA0228	1			RS-270US, 272US 715US
B	E8	AC Power Cord	QFC1016A	1			COMMON
C	E9	Cord Bushing	QTD1126A	1			"
C	E10	Switch Guide	QBJ2133	1			★
A	E11	VU Meter	QSL1018	2			★
C	E12	Meter Holder	QTQM004	1			★
B	E13	DIN Jack	QJS0723S	1			RS-262US, 272US ISO
C	E14	4P Terminal Board	QJT4009	2			COMMON
C	E15	Fuse Holder	QTF1032	1			"
C	E16	Reflection Plate	QBJ2141	1			★
C	E17	Screw	XSNQ0004S	2			COMMON
A	E18	See-Saw Knob (Blue)	QGT2122AS	1			★
A	E19	See-Saw Knob (Yellow)	QGT2122BS	1			★
A	E20	See-Saw Knob	QGTM013S	1			★
A	E21	Relay	QSK0121	1			RS-270US
A	E22	Fuse 0.5 A	XBA1E05NR1	1			COMMON
		CABINET PARTS					
B	G1	Main Body Case Assembly	QYBM0018S	1			★ ISO
B	G1-1	Cassette Lid Spring-R	QBNM003	1			★
B	G1-2	Cassette Lid Spring-L	QBNM004	1			★
C	G1-3	Cassette Lid Shaft	QKQM033	1			★
C	G1-4	Cassette Lid Shaft Spacer	QKQM038	1			★

Rank	Ref. No.	Description	Part No.	Pcs/ Set	Price (Per Pce.)		Remarks
C	G1-5	Stop Ring 3φ	XUC3FT	2			COMMON
A	G2	Cassette Lid Assembly	QYAM0004	1			★
A	G3	Power Switch Button	QYTM007	1			★
A	G4	Volume Knob	QYT0215	2			RS-262US,275US
C	G5	Bottom Board Assembly	QYCM0010	1			★
C	G6	Squre Washer	QWQ1115	2			RS-262US,275US
C	G7	Rubber Foot	QKA1050A	4			RS-256US,262US 280S
C	G8	Screw ⊕3×12	XSN3+12	6			COMMON ISO
C	G9	Screw ⊕3×8	XYN3+C8RS	5			" ISO
C	G10	Chassis Pole	QHGM006S	1			★ ISO
		ACCESSORIES					
A	A1	Connection Cord-G	RP8125 (QEB0060P)	2			COMMON
B	A2	AC Plug Adaptor	QJP0603S	1			" ISO
A	A3	Cassette Tape	QFTITCJNAQZ	1			RS-275US
B	A4	Instruction Book	QQT1788	1			★
		PACKINGS					
C	P1	Inside Carton	QPNM037	1			★
C	P2	Inner Cushion-L	QPNM031	1			★
C	P3	Inner Cushion-R	QPNM032	1			★
C	P4	Dust Cover	XZB50×60A05	1			COMMON
C	P5	Accessory Box	QPW1125	1			RQ-209S RS-261US,262US

RECOMMENDED STOCK OF REPLACEMENT PARTS

Rank of Part	Estimated Selling Q'ty of Tape Recorder Set					
	Less than 50	100	300	500	1,000	2,000
A rank Parts	2	5	15	20	40	80
B rank Parts	1	2	5	10	20	40
C rank Parts	0	1	3	5	10	20

Printed in Japan